

**Preliminary Structural Project Report
For
Bridge Rehabilitation Project**

**1C-334; North Brigham Interchange
3C-334; North Brigham Interchange**



Project Manager: Marjorie Rasmussen
Project Number: BHF-15-8(111)366
PIN Number: 5244
CID Number:
UDOT
Structures Division
Region 1
Prepared by:

Griffen Erickson
December 2004

REPORT SUMMARY

Scope of Project:

1. Purpose of Report

This report presents a conceptual overview of a project to perform Rehabilitation treatments (Bridge Rehabilitation) for structures 1C-334 and 3C-334, the North Brigham Interchange of Interstate 15. It is intended to convey the need, scope, schedule, budget, and quality control process for the project.

2. Project Information

Region: 1 **Route No:** SR-15 **Date:** December 2004

Project Name: North Brigham Interchange Rehabilitation
R.P.: 368.29

Project Number: BHF-15-8(111)366 **PIN:** 5244 **CID:**
Project Design: Bridge: UDOT Structures Division;
Roadway: Region 1 Preconstruction
Project Mgr:

3. Plan:

This project is intended to provide “*rehabilitation treatments*” to extend the life of the bridge.

4. Work Items to be Completed:

- Remove the existing 6” overlay
- Pothole patch the deck (Up to 20%)
- Install a waterproofing membrane
- Apply a new 3” overlay (2” HMA, 1” OGSC)
- Correct erosion and slope protection problems
- Seal the parapets
- Top Coat Painting

5. Work Items to be Deferred:

Roadway and safety items beyond what is related to the bridge repairs will not be included.

6. Design Exceptions:

Design Exception is not expected.

7. Maintenance Considerations:

Region 1 Maintenance Station 1423 should be included in the concept development.

8. Construction Considerations:

Limitations of Operations, A+B and other specifications should be considered. Weekend and night work should be considered since the structure is heavily traveled. Traffic

control could consist of lane closure which would require the use of a variable message board, or equivalent, which ever the region traffic engineer deems acceptable.

9. Risk Analysis: (None anticipated at this time)

10. Development Process:

New or Major Reconstruction	_____
Rehabilitation	_____x_____
Preservation	_____

Schedule of Project:

To get the best quality and bid prices, it is expected that this project be advertised in the Spring of 2008. Construction should be completed in the summer season. A tentative schedule is:

1.	Begin Design Phase	Early Spring 2008
2.	Advertisement Date	Spring 2008
3.	Begin of Construction	Summer 2008
4.	Completion of Construction	Summer 2008

Budget of Project:

1. Funding Source:	FY 08 BR Funds/State Bridge Preservation
2. Amount Programmed:	\$1,400,000.00
3. Cost Estimate:	\$1,400,000.00

Item	Quantity	Unit	Cost	Total Cost
Structure 1C-334				
Approach Slab Stabilization	1	Lump		
Overexcavation of Approach Slabs (30'X10'X45' each side)	1000	CY		
Structural Backfill	1000	CY		
Remove Existing 6" Overlay (Structure)	1295	SY		
Remove Existing 400' Transition Overlay (RW)	2715	SY		
Pothole Patch (Up to 20%)	2330	SF		
Waterproofing Membrane	11650	SF		
2" HMA Overlay (Structure)	146	TON		
1" OGSC (Structure)	73	TON		
2" HMA Overlay (RW)	306	TON		
1" OGSC (RW)	153	TON		
Parapet Upgrade (Inside Lane Only)	130	LF		
Erosion & Concrete Slope Protection Repair	1	LUMP		
Parapet Sealing	255	LF		
Remove and replace Approach Slab/Sleeper Slabs	1	Lump		
Safety Upgrades, Attenuation, Barriert,etc	1	Lump		
Structure 3C-334				
Approach Slab Stabilization	1	Lump		
Overexcavation of Approach Slabs (30'X10'X45' each side)	1000	CY		
Structural Backfill	1000	CY		
Remove Existing 6" Overlay (Structure)	940	SY		
Remove Existing 400' Transition Overlay (RW)	2180	SY		
Pothole Patch (Up to 20%)	1695	SF		
Waterproofing Membrane	8460	SF		
2" HMA Overlay (Structure)	106	TON		
1" OGSC (Structure)	53	TON		
2" HMA Overlay (RW)	246	TON		
1" OGSC (RW)	123	TON		
Parapet Upgrade (Inside Lane Only)	130	LF		
Erosion & Concrete Slope Protection Repair	1	LUMP		
Parapet Sealing	255	LF		
Remove and replace Approach Slab/Sleeper Slabs	1	Lump		
Safety Upgrades, Attenuation, Barriert,etc	1	Lump		
10% Contingency				
16% PE/CE				
Traffic Control - includes barrier across bridges during construction]	1	LUMP		
Mobilization	1	LUMP		
Public Information Services	1	LUMP		
Pavement Marking Paint	1	LUMP		
Project Total				\$1,495,052.30

Traffic Control - includes barrier across bridges during construction]

LOCATION MAP

1C-334 & 3C-334

